

IN THE CLAIMS

Please amend the claims as follows:

1.-3. (Canceled)

4. (Previously Presented) A light source unit for emanating light beams, comprising:  
a plurality of light sources;

a plurality of coupling lenses each corresponding to a light source of said plurality of  
light sources;

a coupling lens holding unit having a first and a second holding faces aligned  
approximately in parallel to an optical axis of a first coupling lens of said plurality of  
coupling lenses;

an elastically pressing member pressing a side portion of said first coupling lens  
against said first and said second holding faces so as to thereby hold said first coupling lens;

a light source holding unit holding a first light source of the plurality of light sources  
corresponding to said first coupling lens; and

a fixing member fixing said light source holding unit,

wherein said fixing member fixes a position of said first light source displaceable over  
a plane perpendicular to said optical axis of said first coupling lens, and

wherein at least one of said first coupling lens and said holding face is provided with a  
lubricating means at a location in contact there between.

5. (Previously Presented) A light source unit for emanating light beams, comprising:  
a plurality of light sources;

a plurality of coupling lenses each corresponding to a light source of said plurality of

light sources;

a coupling lens holding unit having a first and a second holding faces aligned approximately in parallel to an optical axis of a first coupling lens of said plurality of coupling lenses;

an elastically pressing member pressing a side portion of said first coupling lens against said first and said second holding faces so as to thereby hold said first coupling lens;

a light source holding unit holding a first light source of the plurality of light sources corresponding to said first coupling lens; and

a fixing member fixing said light source holding unit,

wherein said fixing member fixes a position of said first light source displaceable over a plane perpendicular to said optical axis of said first coupling lens, and

wherein a portion of said first coupling lens in contact with said holding face is subjected to surface hardening.

6. (Currently Amended) ~~[[A]]~~ The light source unit according to claims 4 or 5 for emanating light beams, comprising:

~~a plurality of light sources;~~

~~a plurality of coupling lenses each corresponding to a light source of said plurality of light sources;~~

~~a coupling lens holding unit having a first and a second holding faces aligned approximately in parallel to an optical axis of a first coupling lens of said plurality of coupling lenses; and~~

~~an elastically pressing member pressing a side portion of said first coupling lens~~

~~against said first and said second holding faces so as to thereby hold said first coupling lens,~~  
wherein a supporting unit is formed, as one set, consisting of said first and second holding faces aligned approximately in parallel to said optical axis of said first coupling lens for holding said first coupling lens, and at least two sets of said supporting unit are formed integrally as one component, ~~each set of said at least two sets having a respective elastically pressing member pressing a side portion of a respective coupling lens of said plurality of coupling lenses.~~

7. (Currently Amended) ~~[[A]]~~ The light source unit according to claims 4 or 5 for emanating light beams, comprising:

~~a plurality of light sources;~~

~~a plurality of coupling lenses each corresponding to a light source of said plurality of light sources;~~

~~a coupling lens holding unit having a first and a second holding faces aligned approximately in parallel to an optical axis of a first coupling lens of said plurality of coupling lenses; and~~

~~an elastically pressing member pressing a side portion of said first coupling lens against said first and said second holding faces so as to thereby hold said first coupling lens,~~

wherein a supporting unit is formed, as one set, consisting of said first and second holding faces aligned approximately in parallel to said optical axis of said first coupling lens for holding said first coupling lens, and at least two sets of said supporting unit are arranged such that a direction of said at least two sets, in terms of a direction of said optical axis, a primary scanning direction and a secondary scanning direction, is identical to each other;

~~each set of said at least two sets having a respective elastically pressing member pressing a side portion of a respective coupling lens of said plurality of coupling lenses.~~

8. (Currently Amended) [[A]] The light source unit according to claims 4 or 5 for emanating light beams, comprising:

a plurality of light sources;

a plurality of coupling lenses each corresponding to a light source of said plurality of light sources;

a coupling lens holding unit having a first and a second holding faces aligned approximately in parallel to an optical axis of a first coupling lens of said plurality of coupling lenses; and

an elastically pressing member pressing a side portion of said first coupling lens against said first and said second holding faces so as to thereby hold said first coupling lens,

wherein a supporting unit is formed, as one set, consisting of said first and second holding faces aligned approximately in parallel to said optical axis of said first coupling lens for holding said first coupling lens, and at least two sets of said supporting unit are arranged such that a direction of said at least two sets, in terms of a direction of said optical axis, a primary scanning direction and a secondary scanning direction, is symmetrical to each other, ~~each set of said at least two sets having a respective elastically pressing member pressing a side portion of a respective coupling lens of said plurality of coupling lenses.~~

9. (Previously Presented) A light source unit for emanating light beams, comprising:

a plurality of light sources;

a plurality of coupling lenses each corresponding to a light source of said plurality of

light sources;

a coupling lens holding unit having a first and a second holding faces aligned approximately in parallel to an optical axis of a first coupling lens of said plurality of coupling lenses; and

an elastically pressing member pressing a side portion of said first coupling lens against said first and said second holding faces so as to thereby hold said first coupling lens, wherein at least one of said first coupling lens and said holding face is provided with a lubricating means at a location in contact there between.

10. (Currently Amended) A light source unit for emanating light beams, comprising:  
a plurality of light sources;

a plurality of coupling lenses each corresponding to a light source of said plurality of light sources;

a coupling lens holding unit having a first and a second holding faces aligned approximately in parallel to an optical axis of a first coupling lens of said plurality of coupling lenses; and

an elastically pressing member pressing a side portion of said first coupling lens against said first and said second holding faces so as to thereby hold said first coupling lens, wherein a supporting unit is formed, as one set, consisting of said first and second holding faces aligned approximately in parallel to said optical axis of said first coupling lens for holding said first coupling lens, and at least two sets of said supporting unit are formed integrally as one component, and

wherein a portion of said first coupling lens in contact with said holding face is

subjected to surface hardening.

11. (Currently Amended) ~~[[A]] The light source unit according to claims 9 or 10 for emanating light beams, comprising:~~

~~a plurality of light sources;~~

~~a plurality of coupling lenses each corresponding to a light source of said plurality of light sources;~~

~~a coupling lens holding unit having a first and a second holding faces aligned approximately in parallel to an optical axis of a first coupling lens of said plurality of coupling lenses; and~~

~~an elastically pressing member pressing a side portion of said first coupling lens against said first and said second holding faces so as to thereby hold said first coupling lens,~~

~~wherein said elastically pressing member is formed of planar elastic material, and~~

~~wherein ends of said elastically pressing member are fixed to said coupling lens holding unit so as to hold in between said ends said portion of said first coupling lens in contact with said holding faces.~~

12. (Original) The light source unit according to claim 11, wherein said ends of said elastically pressing member are fixed approximately symmetric with respect to said portion of said first coupling lens in contact with said holding face.

13. (Currently Amended) A light source unit for emanating light beams, comprising:

a plurality of light sources;

a plurality of coupling lenses each corresponding to a light source of said plurality of light sources;

a coupling lens holding unit having a first and a second holding faces aligned approximately in parallel to an optical axis of a first coupling lens of said plurality of coupling lenses; and

an elastically pressing member pressing a side portion of said first coupling lens against said first and said second holding faces so as to thereby hold said first coupling lens,

wherein said elastically pressing member is formed of planar elastic material, and wherein ends of said elastically pressing member are fixed to said coupling lens holding unit so as to hold in between said ends said portion of said first coupling lens in contact with said holding faces,

wherein said elastically pressing member has a coefficient of linear expansion approximately equal to that of a material of said coupling lens holding unit.

14. (Previously Presented) A light source unit for emanating light beams, comprising:

a plurality of light sources;

a plurality of coupling lenses each corresponding to a light source of said plurality of light sources;

a coupling lens holding unit having a first and a second holding faces aligned approximately in parallel to an optical axis of a first coupling lens of said plurality of coupling lenses; and

an elastically pressing member pressing a side portion of said first coupling lens against said first and said second holding faces so as to thereby hold said first coupling lens,

further comprising:

a light source holding unit holding a first light source of said plurality of light sources attached to said coupling lens holding unit, said first light source corresponding to said first coupling lens,

wherein said coupling lens holding unit, a package unit of a semiconductor laser diode, and said light source holding unit are formed of materials which are selected to satisfy the following relationships:

$$\alpha_1 \leq \alpha_3, \alpha_1 \leq \alpha_2 \leq \alpha_3 \text{ and } \alpha_1 \leq \alpha_4 \leq \alpha_3,$$

where  $\alpha_1(1/K)$ ,  $\alpha_2(1/K)$ ,  $\alpha_3(1/K)$  and  $\alpha_4(1/K)$  are coefficients of linear thermal expansion of said first coupling lens, said coupling lens holding unit, said package unit and said light source holding unit, respectively.

15. (Previously Presented) A light source unit for emanating light beams, comprising:

a plurality of light sources;

a plurality of coupling lenses each corresponding to a light source of said plurality of light sources;

a coupling lens holding unit having a first and a second holding faces aligned approximately in parallel to an optical axis of a first coupling lens of said plurality of coupling lenses; and

an elastically pressing member pressing a side portion of said first coupling lens against said first and said second holding faces so as to thereby hold said first coupling lens, further comprising:

a light source holding unit attached to said coupling lens holding unit for holding a



first light source of said plurality of light sources corresponding to said first coupling lens,  
wherein said coupling lens holding unit, a package unit of a semiconductor laser diode, and said light source holding unit are formed of materials which are selected to satisfy the following relationships:

$$\alpha_3 < \alpha_1, \alpha_3 \leq \alpha_2 \leq \alpha_1 \text{ and } \alpha_3 \leq \alpha_4 \leq \alpha_1,$$

where  $\alpha_1(1/K)$ ,  $\alpha_2(1/K)$ ,  $\alpha_3(1/K)$  and  $\alpha_4(1/K)$  are coefficients of linear thermal expansion of said first coupling lens, said coupling lens holding unit, said package unit and said light source holding unit, respectively.

16. (Canceled)

17. (Canceled)

18. (Previously Presented) A light beam scanning unit, comprising:

a light source unit for emanating light beams, comprising:

a plurality of light sources;

a plurality of coupling lenses each corresponding to a light source of said plurality of light sources;

a coupling lens holding unit having a first and a second holding faces aligned approximately in parallel to an optical axis of a first coupling lens of said plurality of coupling lenses; and

an elastically pressing member pressing a side portion of said first coupling lens against said first and said second holding faces so as to thereby hold said first coupling lens;

a light source holding unit attached to said coupling lens holding unit for holding a

first light source of said plurality of light sources corresponding to said first coupling lens;

a light beam deflection unit adapted to receive and subsequently deflect light beams emanated from said light source unit; and

an optics system adapted to focus the light beams onto a member to be scanned and scanning along a primary scanning direction,

wherein said first coupling lens, said coupling lens holding unit, a package unit of a semiconductor laser diode, and said light source holding unit are formed of materials which are selected in terms of coefficients of linear thermal expansion  $\alpha_1$ ,  $\alpha_2$ ,  $\alpha_3$  and  $\alpha_4$ , and radii  $r_1$  and  $r_3$  are adjusted such that a positional deviation of the light beams on the member to be scanned is controlled to be equal to, or smaller than 50% of a dot pitch of the light beams, and

wherein  $\alpha_1(1/K)$ ,  $\alpha_2(1/K)$ ,  $\alpha_3(1/K)$  and  $\alpha_4(1/K)$  are coefficients of linear thermal expansion of said first coupling lens, said coupling lens holding unit, said package unit and said light source holding unit, respectively;  $r_1$  (mm) is a distance from said optical axis of said first coupling lens to a point of contact between said first coupling lens and said holding face; and  $r_3$  (mm) is an outer radius of said package unit.

19. (Original) The light beam scanning unit according to claim 18, wherein a plurality of light beams are scanned, the plurality of light beams each being emanated by a plurality of said light source units arranged in a row.

20. (Previously Presented) A light beam scanning unit, comprising:

a light source unit for emanating light beams, comprising:

a plurality of light sources;

a plurality of coupling lenses each corresponding to a light source of said plurality of light sources;

a coupling lens holding unit having a first and a second holding faces aligned approximately in parallel to an optical axis of a first coupling lens of said plurality of coupling lenses; and

an elastically pressing member pressing a side portion of said first coupling lens against said first and said second holding faces so as to thereby hold said first coupling lens;

a light source holding unit attached to said coupling lens holding unit for holding a first light source of said plurality of light sources corresponding to said first coupling lens,

a light beam deflection unit adapted to receive and subsequently deflect light beams emanated from said light source unit; and

an optics system adapted to focus the light beams onto a member to be scanned and scanning along a primary scanning direction,

wherein said first coupling lens, said coupling lens holding unit, a package unit of a semiconductor laser diode, and said light source holding unit are formed of materials which are selected in terms of coefficients of linear thermal expansion  $\alpha_1$ ,  $\alpha_2$ ,  $\alpha_3$  and  $\alpha_4$ , and radii  $r_1$  and  $r_3$  are adjusted so as to satisfy the following relationships:

$$\alpha_2 = \alpha_4; \text{ and}$$

$$|\alpha_3 \times r_3 - \{\alpha_1 \times r_1 + \alpha_2 \times (r_3 - r_1)\}| \leq 2.5 \times 10^{-5} \text{ (mm/K),}$$

where  $\alpha_1$  (1/K),  $\alpha_2$  (1/K),  $\alpha_3$  (1/K) and  $\alpha_4$  (1/K) are coefficients of linear thermal expansion of said first coupling lens, said coupling lens holding unit, said package unit and said light

source holding unit, respectively;  $r_1$  (mm) is a distance from said optical axis of said first coupling lens to a point of contact between said first coupling lens and said holding face; and  $r_3$  (mm) is an outer radius of said package unit.

21. (Previously Presented) The light beam scanning unit according to claim 20, wherein  $\alpha_3 \times r_3 - \{\alpha_1 \times r_1 + \alpha_2 \times (r_3 - r_1)\}$  is equal to, or smaller than  $1 \mu\text{m}$  at normal temperatures.

22. (Original) The light beam scanning unit according to claim 20, wherein a plurality of light beams are scanned simultaneously, the plurality of light beams each being emanated by a plurality of said light source units arranged in a row.

23. (Previously Presented) An image forming apparatus, comprising:  
said light beam scanning unit recited in anyone of claims 18 through 22; and  
an image forming unit for rendering an image visible, the image being written by said light beam scanning unit onto an image bearing member corresponding to input image data.

24. (Original) The image forming apparatus according to claim 23, wherein said light beam scanning unit and said image forming unit are provided for each color rendered visible by said image forming apparatus.

25.-27. (Canceled)

28. (Currently Amended) A light source unit for emanating light beams, comprising:  
a plurality of light source emitting means for emitting light;  
a plurality of optical coupling lens means each corresponding to a light source emitting of said plurality of light source emitting;

[[a]] an optical coupling lens holding means having a first and a second means for holding a first optical coupling means of said plurality of optical coupling means, said first

and second means for holding face-means being aligned approximately in parallel to an optical axis of [[a]] said first optical coupling lens means of said plurality of coupling lens means;

an elastically pressing means for pressing a side portion of said first optical coupling lens means against said first and said second means for holding face-means so as to hold said first optical coupling lens means;

a light source holding means for holding a first light source emitting of said plurality of light source means corresponding to said first optical coupling lens means; and

a fixing means for fixing said light source holding means,

wherein said fixing means operates to fix a position of said first light source emitting means displaceable over a plane perpendicular to said optical axis of said first optical coupling lens means, and

wherein at least one of said first optical coupling lens means and said first and second means for holding face-means is provided with a lubricating means at a location in contact there between.

29. (Currently Amended) A light source unit for emanating light beams, comprising:

a plurality of light source emitting means for emitting light;

a plurality of optical coupling lens means each corresponding to a light source emitting means of said plurality of light source emitting means;

[[a]] an optical coupling lens holding means having a first and a second means for holding a first optical coupling means of said plurality of optical coupling means, said first and second means for holding face-means being aligned approximately in parallel to an

optical axis of [[a]] said first optical coupling lens means of ~~said plurality of coupling lens~~ means;

an elastically pressing means for pressing a side portion of said first optical coupling lens means against said first and said second means for holding face means so as to hold said first optical coupling lens means;

a light source holding means for holding a first light source emitting means of said plurality of light source emitting means corresponding to said first optical coupling lens means; and

a fixing means for fixing said light source holding means,  
wherein said fixing means operates to fix a position of said first light source emitting means displaceable over a plane perpendicular to said optical axis of said first optical coupling lens means, and

wherein a portion of said first optical coupling lens means in contact with said first and second means for holding face means is subjected to surface hardening.

30. (Currently Amended) A light source unit according to claims 28 or 29 for emanating light beams, comprising:

~~a plurality of light source means;~~

~~a plurality of coupling lens means each corresponding to a light source means of said plurality of light source means;~~

~~a coupling lens holding means having a first and a second holding face means aligned approximately in parallel to an optical axis of a first coupling lens means of said plurality of coupling lens means; and~~

~~an elastically pressing means for pressing a side portion of said first coupling lens means against said first and said second holding face means so as to hold said first coupling lens means,~~

wherein a supporting unit means is formed, as one set, consisting of said first and second means for holding face means aligned approximately parallel to said optical axis of said first optical coupling lens means for holding said first optical coupling lens means, and at least two sets of said supporting unit means are formed integrally as one component, and

~~wherein each set of said at least two sets having a respective elastically pressing means pressing a side portion of a respective coupling lens means of said plurality of coupling lens means.~~

31. (Currently Amended) A light source unit according to claims 28 or 29 for emanating light beams, comprising:

~~a plurality of light source means;~~

~~a plurality of coupling lens means each corresponding to a light source means of said plurality of light source means;~~

~~a coupling lens holding means having a first and a second holding face means aligned approximately in parallel to an optical axis of a first coupling lens means of said plurality of coupling lens means; and~~

~~an elastically pressing means for pressing a side portion of said first coupling lens means against said first and said second holding face means so as to hold said first coupling lens means,~~

wherein a supporting means is formed, as one set, consisting of said first and second

means for holding face means aligned approximately in parallel to said optical axis of said first optical coupling lens means for holding said first optical coupling lens means, and at least two sets of said supporting means are arranged such that a direction of said at least two sets, in terms of a direction of said optical axis, a primary scanning direction and a secondary scanning direction, is identical to each other, and

~~wherein each set of said at least two sets having a respective elastically pressing means pressing a side portion of a respective coupling lens means of said plurality of coupling lens means.~~

32. (Currently Amended) A light source unit according to claims 28 or 29 ~~for emanating light beams, comprising:~~

~~a plurality of light source means;~~

~~a plurality of coupling lens means each corresponding to a light source means of said plurality of light source means;~~

~~a coupling lens holding means having a first and a second holding face means aligned approximately in parallel to an optical axis of a first coupling lens means of said plurality of coupling lens means; and~~

~~an elastically pressing means for pressing a side portion of said first coupling lens means against said first and said second holding face means so as to hold said first coupling lens means,~~

wherein a supporting means is formed, as one set, consisting of said first and second means for holding face means aligned approximately in parallel to said optical axis of said first optical coupling lens means for holding said first optical coupling lens means, and at



least two sets of said supporting means are arranged such that a direction of said at least two sets, in terms of a direction of said optical axis, a primary scanning direction and a secondary scanning direction, is symmetrical to each other, ~~and~~

~~wherein each set of said at least two sets having a respective elastically pressing means pressing a side portion of a respective coupling lens means of said plurality of coupling lens means.~~

33. (Currently Amended) A light source unit for emanating light beams, comprising:  
a plurality of light source emitting means for emitting light;  
a plurality of optical coupling ~~lens~~ means each corresponding to a light source emitting means of said plurality of light source emitting means;

[[a]] an optical coupling ~~lens~~ holding means having a first and a second means for holding a first optical coupling means of said plurality of optical coupling means, said first and second means for holding face means being aligned approximately in parallel to an optical axis of [[a]] said first optical coupling ~~lens~~ means ~~of said plurality of coupling lens means~~; and

an elastically pressing means for pressing a side portion of said first optical coupling ~~lens~~ means against said first and said second means for holding face means so as to hold said first optical coupling ~~lens~~ means,

wherein at least one of said first optical coupling ~~lens~~ means and said first and second means for holding face means is provided with a lubricating means at a location in contact there between.

34. (Currently Amended) A light source unit for emanating light beams, comprising:

a plurality of light source ~~emitting~~ means for emitting light;

a plurality of optical coupling lens means each corresponding to a light source ~~emitting~~ means of said plurality of light source ~~emitting~~ means;

[[a]] an optical coupling lens holding means having a first and a second means for holding a first optical coupling means of said plurality of optical coupling means, said first and second means for holding face means being aligned approximately in parallel to an optical axis of [[a]] said first optical coupling lens means ~~of said plurality of coupling lens means~~; and

an elastically pressing means for pressing a side portion of said first optical coupling lens means against said first and said second means for holding face means so as to hold said first optical coupling lens means,

wherein a portion of said first optical coupling lens means in contact with said first and second means for holding face means is subjected to surface hardening.

35. (Currently Amended) [[A]] The light source unit according to claims 33 or 34 for emanating light beams, comprising:

a plurality of light source means;

a plurality of coupling lens means each corresponding to a light source means of said plurality of light source means;

a coupling lens holding means having a first and a second holding face means aligned approximately in parallel to an optical axis of a first coupling lens means of said plurality of coupling lens means; and

an elastically pressing means for pressing a side portion of said first coupling lens

~~means against said first and said second holding face means so as to hold said first coupling lens means,~~

wherein said elastically pressing means is formed of planar elastic material, and  
wherein said elastically pressing means has ends fixed to said optical coupling holding means so as to hold in between said ends said portion of said first optical coupling lens means in contact with said first and second means for holding face means.

36. (Currently Amended) The light source unit according to claim 35, wherein said ends of said elastically pressing means are fixed approximately symmetric with respect to said portion of said first optical coupling lens means in contact with said first and second means for holding face means.

37. (Currently Amended) A light source unit for emanating light beams, comprising:  
a plurality of light source ~~emitting~~ means for emitting light;  
a plurality of optical coupling lens means each corresponding to a light source ~~emitting~~ means of said plurality of light source ~~emitting~~ means;

[[a]] an optical coupling lens holding means having a first and a second means for holding a first optical coupling means of said plurality of optical coupling means, said first and second means for holding face means being aligned approximately in parallel to an optical axis of [[a]] said first optical coupling lens means ~~of said plurality of coupling lens means~~; and

an elastically pressing means for pressing a side portion of said first optical coupling lens means against said first and said second means for holding face means so as to hold said first optical coupling lens means,

wherein said elastically pressing means is formed of planar elastic material, and  
wherein said elastically pressing means has ends fixed to said optical coupling holding means so as to hold in between said ends said portion of said first optical coupling lens means in contact with said first and second means for holding face means, and  
wherein said elastically pressing means has a coefficient of linear expansion approximately equal to that of a material of said optical coupling lens holding means.

38. (Currently Amended) A light source unit for emanating light beams, comprising:  
a plurality of light ~~source~~ emitting means for emitting light;  
a plurality of optical coupling lens means each corresponding to a light ~~source~~ emitting means of said plurality of light ~~source~~ emitting means;

[[a]] an optical coupling lens holding means having a first and a second means for holding a first optical coupling means of said plurality of optical coupling means, said first and second means for holding face means ~~being~~ aligned approximately in parallel to an optical axis of [[a]] said first optical coupling lens means ~~of said plurality of coupling lens means~~; and

an elastically pressing means for pressing a side portion of said first optical coupling lens means against said first and said second means for holding face means so as to hold said first optical coupling lens means,

further comprising:

a light source holding means for holding a first light ~~source~~ emitting means of said plurality of light ~~source~~ emitting means attached to said optical coupling lens holding means, said first light ~~source~~ emitting means corresponding to said first optical coupling lens means,

wherein said optical coupling ~~lens~~ holding means, a package means of a semiconductor laser diode, and said light source holding means are formed of materials which are selected to satisfy the following relationships:

$$\alpha 1 \leq \alpha 3, \alpha 1 \leq \alpha 2 \leq \alpha 3 \text{ and } \alpha 1 \leq \alpha 4 \leq \alpha 3,$$

where  $\alpha 1(1/K)$ ,  $\alpha 2(1/K)$ ,  $\alpha 3(1/K)$  and  $\alpha 4(1/K)$  are coefficients of linear thermal expansion of said first optical coupling ~~lens~~ means, said optical coupling ~~lens~~ holding means, said package means and said light source holding means, respectively.

39. (Currently Amended) A light source unit for emanating light beams, comprising:

a plurality of light source emitting means for emitting light;

a plurality of optical coupling ~~lens~~ means each corresponding to a light source emitting means of said plurality of light source emitting means;

[[a]] an optical coupling ~~lens~~ holding means having a first and a second means for holding a first optical coupling means of said plurality of optical coupling means, said first and second means for holding face means being aligned approximately in parallel to an optical axis of [[a]] said first optical coupling ~~lens~~ means of ~~said plurality of coupling lens means~~; and

an elastically pressing means for pressing a side portion of said first optical coupling ~~lens~~ means against said first and said second means for holding face means so as to hold said first optical coupling ~~lens~~ means,

further comprising:

a light source holding means attached to said optical coupling ~~lens~~ holding means for holding a light source emitting means of said plurality of light source emitting means

corresponding to said first optical coupling ~~lens~~ means,

wherein said optical coupling ~~lens~~ holding means, a package means of a semiconductor laser diode, and said light source holding means are formed of materials which are selected to satisfy the following relationships:

$$\alpha_3 < \alpha_1, \alpha_3 \leq \alpha_2 \leq \alpha_1 \text{ and } \alpha_3 \leq \alpha_4 \leq \alpha_1,$$

where  $\alpha_1(1/K)$ ,  $\alpha_2(1/K)$ ,  $\alpha_3(1/K)$  and  $\alpha_4(1/K)$  are coefficients of linear thermal expansion of said first optical coupling ~~lens~~ means, said optical coupling ~~lens~~ holding means, said package means and said light source holding means, respectively.

40.-41. (Canceled)

42. (Currently Amended) A light beam scanning unit, comprising:

a light source unit for emanating light beams, comprising:

a plurality of light ~~source~~ emitting means for emitting light;

a plurality of optical coupling ~~lens~~ means each corresponding to a light ~~source~~ emitting means of said plurality of light ~~source~~ emitting means;

[[a]] an optical coupling ~~lens~~ holding means having a first and a second means for holding a first optical coupling means of said plurality of optical coupling means, said first and second means for holding ~~face means~~ being aligned approximately in parallel to an optical axis of [[a]] said first optical coupling ~~lens~~ means ~~of said plurality of coupling lens means~~; and

an elastically pressing means for pressing a side portion of said first optical coupling ~~lens~~ means against said first and said second means for holding ~~face means~~ so as to hold said first optical coupling ~~lens~~ means;

a light source holding means attached to said optical coupling ~~lens~~ holding means for holding a first light source emitting means of said plurality of light source emitting means corresponding to said first optical coupling ~~lens~~ means;

a light beam ~~deflection~~ deflecting means for receiving and subsequently deflecting light beams emanated from said first light source emitting means; and

~~an optics system~~ a focusing and scanning means for focusing the light beams onto a means to be scanned and scanning along a primary scanning direction,

wherein said first optical coupling ~~lens~~ means, said optical coupling ~~lens~~ holding means, a package means of a semiconductor laser diode, and said light source holding means are formed of materials which are selected in terms of coefficients of linear thermal expansion  $\alpha_1$ ,  $\alpha_2$ ,  $\alpha_3$  and  $\alpha_4$ , and radii  $r_1$  and  $r_3$  are adjusted such that a positional deviation of the light beams on said means to be scanned is controlled to be equal to, or smaller than 50% of a dot pitch of the light beams, and

wherein  $\alpha_1(1/K)$ ,  $\alpha_2(1/K)$ ,  $\alpha_3(1/K)$  and  $\alpha_4(1/K)$  are coefficients of linear thermal expansion of said first optical coupling ~~lens~~ means, said optical coupling ~~lens~~ holding means, said package means and said light source holding means, respectively;  $r_1$  (mm) is a distance from an optical axis of said first optical coupling ~~lens~~ means to a point of contact between said first optical coupling ~~lens~~ means and said first and second means for holding face means; and  $r_3$  (mm) is an outer radius of said package means.

43. (Currently Amended) The light beam scanning unit according to claim 42, wherein a plurality of light beams are scanned, the plurality of light beams each being emanated by a plurality of said light source emitting means arranged in a row.

44. (Currently Amended) A light beam scanning unit, comprising:

a light source unit for emanating light beams, comprising:

a plurality of light ~~source~~ emitting means for emitting light;

a plurality of optical coupling ~~lens~~ means each corresponding to a light ~~source~~ emitting means of said plurality of light ~~source~~ emitting means;

[[a]] an optical coupling ~~lens~~ holding means having a first and a second means for holding a first optical coupling means of said plurality of optical coupling means, said first and second means for holding ~~face means~~ being aligned approximately in parallel to an optical axis of [[a]] said first optical coupling ~~lens~~ means ~~of said plurality of coupling lens means~~; and

an elastically pressing means for pressing a side portion of said first optical coupling ~~lens~~ means against said first and said second means for holding face means so as to hold said first optical coupling ~~lens~~ means;

a light source holding means attached to said optical coupling ~~lens~~ holding means for holding a first light ~~source~~ emitting means of said plurality of light ~~source~~ emitting means corresponding to said first optical coupling ~~lens~~ means;

a light beam ~~deflection~~ deflecting means for receiving and subsequently deflecting light beams emanated from said first light ~~source~~ emitting means; and

~~an optics system~~ a focusing and scanning means for focusing the light beams onto a means to be scanned and scanning along a primary scanning direction,

wherein said first optical coupling ~~lens~~ means, said optical coupling ~~lens~~ holding means, a package means of a semiconductor laser diode, and said light source holding means



are formed of materials which are selected in terms of coefficients of linear thermal expansion  $\alpha_1$ ,  $\alpha_2$ ,  $\alpha_3$  and  $\alpha_4$ , and radii  $r_1$  and  $r_3$  are adjusted so as to satisfy the following relationships:

$$\alpha_2 = \alpha_4, \text{ and}$$

$$|\alpha_3 \times r_3 - \{\alpha_1 \times r_1 + \alpha_2 \times (r_3 - r_1)\}| \leq 2.5 \times 10^{-5} \text{ (mm/K)},$$

where  $\alpha_1(1/K)$ ,  $\alpha_2(1/K)$ ,  $\alpha_3(1/K)$  and  $\alpha_4(1/K)$  are coefficients of linear thermal expansion of said first optical coupling lens means, said optical coupling lens holding means, said package means and said light source holding means, respectively;  $r_1$  (mm) is a distance from an optical axis of said first optical coupling lens means to a point of contact between said first optical coupling lens means and said first and second means for holding face means; and  $r_3$  (mm) is an outer radius of said package means.

45. (Original) The light beam scanning unit according to claim 44, wherein:

$\alpha_3 \times r_3 - \{\alpha_1 \times r_1 + \alpha_2 \times (r_3 - r_1)\}$  is equal to, or smaller than  $1 \mu\text{m}$  at normal temperatures.

46. (Currently Amended) The light beam scanning unit according to claim 44, wherein a plurality of light beams are scanned, the plurality of light beams each being emanated by a plurality of said light source emitting means arranged in a row.

47. (Currently Amended) An image forming apparatus, comprising:  
said light beam scanning means unit recited in any one of claims 42 through 46; and  
an image forming means for rendering an image visible, said image being written by said light beam scanning means onto an image bearing means corresponding to input image data.

48. (Currently Amended) The image forming apparatus according to claim 47,

wherein said light beam scanning ~~means~~ unit and said image forming means are provided for each color rendered visible by said image forming apparatus.

49. (New) The light source unit according to claims 9 or 10, wherein a supporting unit is formed, as one set, consisting of said first and second holding faces aligned approximately in parallel to said optical axis of said first coupling lens for holding said first coupling lens, and at least two sets of said supporting unit are formed integrally as one component.